



ARROYO CENTER

The Challenges of the “Now” and What They Mean for America’s Land Forces

Dr. David Johnson



The Full Range of Military Operations— The Security Environment For Which We Are Not Ready



We are in a period similar to that after Vietnam and the 1973 Yom Kippur War

“Low-End” Non-State Irregular Adversaries— Our Focus Since 9/11



- Mujahideen (Afghanistan 1979)
- PLO West Bank (2001)
- Al-Qaeda in Iraq (2007)
- Taliban Afghanistan (2009)

State

State-Sponsored Hybrid

Non-State Irregular

- Organization: Not well-trained; little formal discipline; cellular structure; small formations (squads)
- ★ • Weapons: Small arms, RPGs, mortars, short-range rockets, IEDS/mines
- Command and Control: Cell phones; runners; decentralized

The United States—like Israel before the 2006 Lebanon War—became expert at Irregular Warfare

The U.S. Joint Force Has Adapted in Afghanistan and Iraq— Particularly in Systems for Land Forces



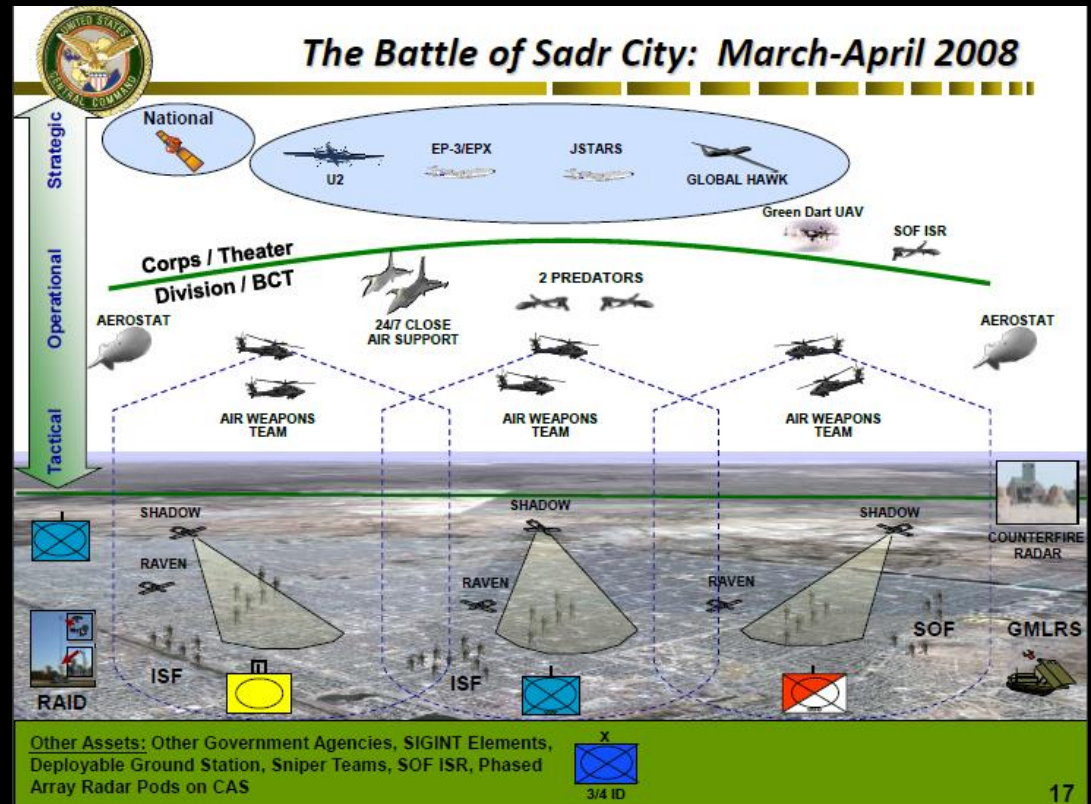
MRAP and up-armored HMMV



Stryker upgrade: double v hull/slat armor



C-RAM for base protection



Systems integrated into 2008 Battle of Sadr City

Are These Adaptations Compatible with Expeditionary Forces?



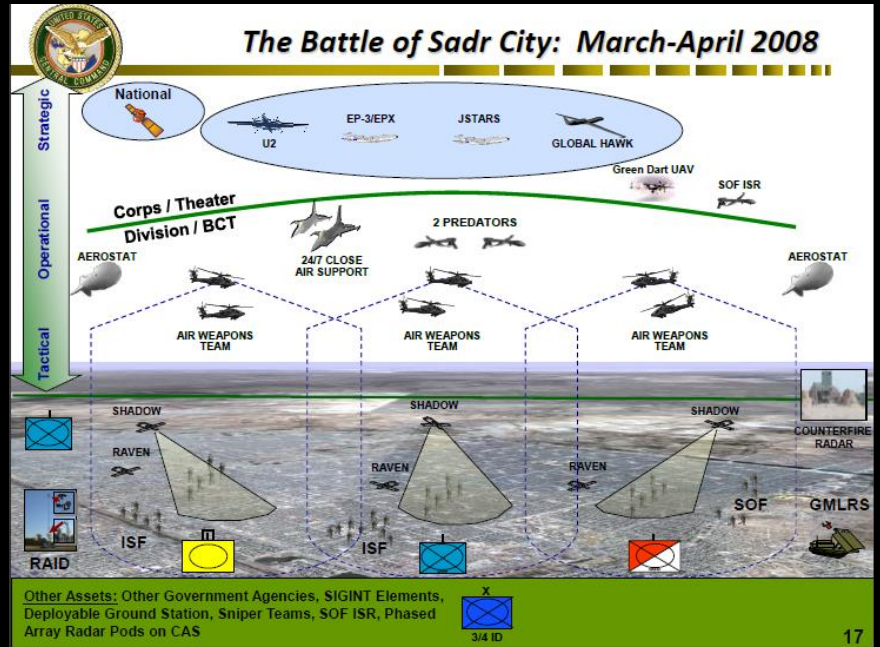
HMMWV with Crows—not air-droppable



Stryker no longer C-130 deployable with slat armor and double v hull



C2 systems on MRAPs—not C-130 or air assault capable



Required an immense infrastructure developed over years



Large command centers: 1st Cavalry Division Tactical Command Post at the National Training Center February 2015—soft target

“High-End” State Adversaries

- Mujahideen (Afghanistan 1979)
- PLO West Bank (2001)
- Al-Qaeda in Iraq (2007)
- Taliban Afghanistan (2009)

Non-State Irregular

- Organization: Not well-trained; little formal discipline; cellular structure; small formations (squads)
- Weapons: Small arms, RPGs, mortars, short-range rockets, IEDs/mines
- Command and Control: Cell phones; runners; decentralized

State-Sponsored Hybrid

State

- Soviet Union (Afghan 70s-80s)
- Russia (Chechnya 1990s)
- Israel (Lebanon 2006)
- Georgia (2008)
- Russia (Georgia 2008)
- Israel (Gaza 2008)
- United States (Afghan/Iraq 2010)

- Organization: Hierarchical; brigade or larger-sized formations
- Weapons: Sophisticated air defenses; ballistic missiles; conventional ground forces; special operations forces; air forces; navies; some with nuclear weapons
- Command and Control: All means; generally centralized

***Focus was on major combat operations before OIF;
how much we remember how to fight these adversaries an important
issue—given Russia and China***

Russian Weapons Particularly Important to U.S. Ground Forces

- Capabilities are real problems now:
 - Anti-access and area denial (A2AD), e.g., integrated air defenses and advanced MANPADS
 - Long-range rocket threat (beyond 100KM) with precision and multiple warhead options (anti-personnel, top attack, mines, thermobaric, etc.)
 - Advanced ground systems (6K range ATGM for tanks/active protection)
 - Cyber
 - Special operations
 - And . . .



S-400 air defense launch vehicle



BM-30 300mm MLRS



Pantsir-S1 air defense system



T-14 Armata Tank with unmanned turret



9K333 Verba MANPADS



Air droppable BMD-4

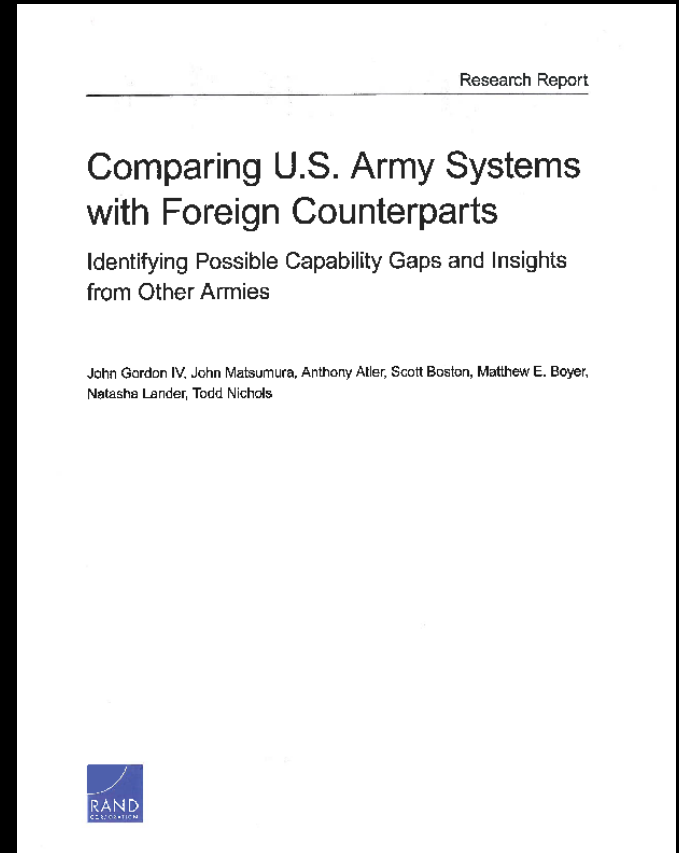


TOS-1 MRL

World War II is the last time we fought this type of adversary

Why Is All This Important?

- **May not fight Russians or Chinese, but we will surely fight their systems**
- **Second-tier and some first-tier weapons in Ukraine and Middle East—and elsewhere**
- **U.S. ground forces have capability gaps and vulnerabilities against these weapons, much like the Israelis in Lebanon in 2006**
- **These vulnerabilities exist today and need to be addressed to avoid operational and political surprise**



At http://www.rand.org/pubs/research_reports/RR716.html

TOS-1 MRL

<https://www.youtube.com/watch?v=WfacUxfJbFI>

In service with Iraq Security forces

2006 Lebanon War Showed the Proliferation of “State” Capabilities and a More Lethal Adversary

- Hezbollah abducted IDF (Israel Defense Force) soldiers and launched rocket attacks after IDF response
- IDF initial approach: fires (mostly air) attack and limited ground raids
- Army committed late; operations not against a strategic purpose—looked ineffectual and cannot stop short range rockets
- After 34 days ceasefire agreement; Hezbollah moves from border and UN peacekeepers deployed



***War not a defeat for Israel, but absence of victory very problematic—
IDF looks weak for the first time***

Israeli Strategic Perspectives Before Lebanon— Not Dissimilar From Those of Many Western Countries Today

- Belief by 2006 that Israel beyond era of major war: “the main challenge facing land forces would be low intensity asymmetrical conflicts” (*Winograd Commission Report*)
- IDF interpretation of Kosovo, OEF, and OIF: standoff attack by fires (principally air power) can deter or defeat state adversaries
- Israeli Army riveted on stopping second *al-Aqsa* intifada terrorist attacks inside Israel
- ***This all made sense at the time—and was wrong***
- Libya and the current campaign against the Islamic State show a similar U.S. aversion to committing ground forces

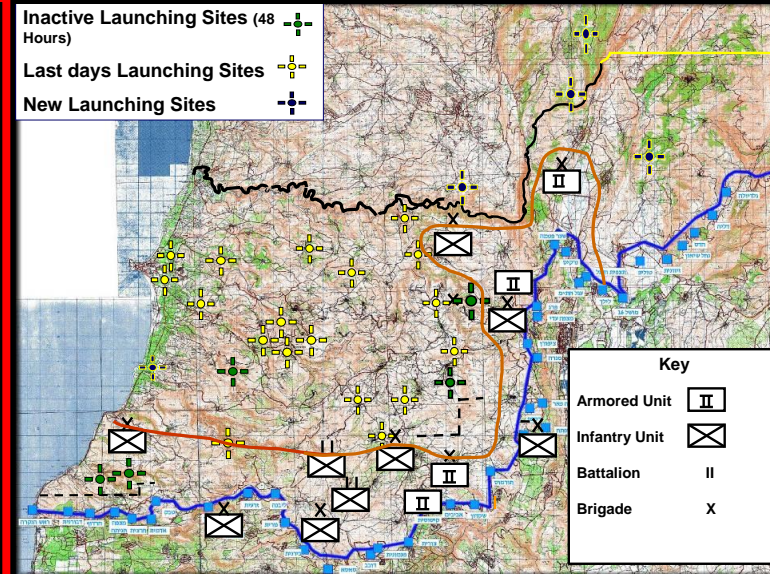


“From 2000 until 2006, the typical mission for an Israeli infantryman was to man a checkpoint in the Palestinian territories or to snatch a suspected Palestinian militant out of his house in the middle of the night—missions very similar to those currently being executed by U.S. infantrymen in Iraq”

Source: Andrew Exum, “Hizballah at War: A Military Assessment”

Insights From Lebanon: Competent Adversaries With Good Weapons in Complex Terrain

- Hezbollah not 10-feet tall but . . . IDF could not solve the problem with existing low intensity conflict skills, mindsets, and materiel solutions
- Hezbollah required a tightly integrated and joint Air-Ground-ISR solution the IDF could not execute in 2006
- Lebanon War a “wake-up call”—“Back to Basics”—and Namer program/more Merkava IV tanks
- IDF did not abandon low intensity conflict missions but realized it had to prepare for the full range of operations
- Learning and preparing pay off in Gaza in Operations Cast Lead and Protective Edge
- U.S. has talked about these lessons but is not developing DOTMLPF-P solutions sufficient to address them (highly integrated air-ground operations, active protection, mobile counter rocket systems, etc.)



Israeli Ground Forces Final Positions



Hezbollah Rocket Launcher

Minding the “Middle”—State-Sponsored Hybrid Adversaries

- Mujahideen (Afghanistan 1979)
- PLO West Bank (2001)
- Al-Qaeda in Iraq (2007)
- Taliban Afghanistan (2009)

Non-State Irregular

- Organization: Not well-trained; little formal discipline; cellular structure; small formations (squads)
- Weapons: Small arms, RPGs, mortars, short-range rockets, IEDs/mines
- Command and Control: Cell phones; runners; decentralized

- Mujahideen Afghanistan (1988)
- Chechnya (1990)
- Hezbollah Lebanon (2006)
- Hamas Gaza (2008)
- ISIS (Now)
- Ukrainian Separatists (Now)

State-Sponsored Hybrid



- Organization: Moderately-trained; disciplined; moderate-sized formations (up to battalion)
- Weapons: Same as irregular, but with stand-off capabilities (ATGMs, MANPADs, longer-range rockets)
- Command and Control: Multiple means; decentralized

- Soviet Union (in Afghan 70s-80s)
- Russia (Chechnya 1990s)
- Israel (Lebanon 2006)
- Georgia (2008)
- Russia (Georgia 2008)
- Israel (Gaza 2008)
- United States (Afghan/Iraq 2010)

State

- Organization: Hierarchical; brigade or larger-sized formations
- Weapons: Sophisticated air defenses; ballistic missiles; conventional ground forces; special operations forces; air forces; navies; some with nuclear weapons
- Command and Control: All means; generally centralized

The United States has not confronted competent hybrid adversaries since the Vietnam War

Insights From Recent and Ongoing Wars: Competence and Weapons Matter

- Hybrid opponents, like Hezbollah, Hamas, Russian Separatists, and the Islamic State create a *qualitative* challenge, despite their *smaller size*, because of their
 - Training, discipline, organization, C2
 - Stand-off weapons (ATGMs, MANPADS, mortars, rockets)
 - Use of complex terrain (“nature reserves,” urban) and fighting amongst the people
- Can force change in operational methods (limit helicopter and close air support use)



ISIS ATGM hitting Iraqi M-1 Abrams Tank



Aftermath of Grad attack in Ukraine

Antitank Guided Missiles in Syria

https://www.youtube.com/watch?v=P6_8LMNIRnI

Russian Arena Active Protection System

<https://www.youtube.com/watch?v=YpmcmKwWzYo>

GRAD Rockets in Ukraine

<https://www.youtube.com/watch?v=UXSyU3ais08>

Free Syrian Army Rebels MANPADS Kill of Helicopter

<https://www.youtube.com/watch?v=tCnLq6XbmY0>

Why Are Hezbollah, ISIS, and Ukrainian Separatists Important?

“Minding the Middle”

- This is a type of adversary that the U.S. Army and Marine corps will encounter in the future
- Hybrid adversaries are rising from the ongoing turmoil in North Africa, the Middle East, Ukraine (and could elsewhere—North Korea)
- Strategy: protraction, causing large numbers of casualties, influencing the media—and reluctance of western states to put “boots on the ground” or cause civilian casualties
- Not necessarily “insurgencies”—irregular warfare, COIN, and “stability operations” may be largely irrelevant
- They often go to ground in urban areas to hide amongst the people



The Beginning of a Short List of Priorities for Combat Development

- Joint, combined arms fire and maneuver
- Mobile protected firepower—with active protection against high-end ATGMs/RPGs
- Counterfire system that can find and destroy rockets beyond 100 kilometers
- Counter UAS and counter rocket defenses
- Counter high-end MANPADS systems for Army aviation
- Mobile, survivable headquarters
- Backup to GPS for timing and location
- Cyber/jam proof communications
- And . . .

- Mujahideen (Afghanistan 1979)
- PLO West Bank (2001)
- Al-Qaeda in Iraq (2007)
- Taliban Afghanistan (2009)

Non-State Irregular

- **Organization:** Not well-trained; little formal discipline; cellular structure; small formations (squads)
- **Weapons:** Small arms, RPGs, mortars, short-range rockets, IEDs/mines
- **Command and Control:** Cell phones; runners; decentralized

- Mujahideen Afghanistan (1988)
- Chechnya (1990)
- Hezbollah Lebanon (2006)
- Hamas Gaza (2008)
- ISIS (Now)
- Ukrainian Separatists (Now)

State-Sponsored Hybrid

- **Organization:** Moderately-trained; disciplined; moderate-sized formations (up to battalion)
- ★ **Weapons:** Same as irregular, but with stand-off capabilities (ATGMs, MANPADs, longer-range rockets)
- **Command and Control:** Multiple means; decentralized

- Soviet Union (in Afghan 70s-80s)
- Russia (Chechnya 1990s)
- Israel (Lebanon 2006)
- Georgia (2008)
- Russia (Georgia 2008)
- Israel (Gaza 2008)
- United States (Afghan/Iraq 2010)

State

- **Organization:** Hierarchical; brigade or larger-sized formations
- **Weapons:** Sophisticated air defenses; ballistic missiles; conventional ground forces; special operations forces; air forces; navies; some with nuclear weapons
- **Command and Control:** All means; generally centralized



Final Thoughts—A Joint Force for the Future

- Potential adversaries know our capabilities—and vulnerabilities—and are adapting
- Future challenges require joint forces
 - Prepared for a range of adversaries—irregular, state-sponsored hybrid, and state
 - Prepared for operations in complex terrain, particularly large urban areas—with the adversary operating “amongst the people”
 - Capable of joint, combined arms, fire and maneuver
- Balanced ground force key
- Armor (tanks/IFVs/APCs) matters against adversaries with stand-off fires
- We have important DOTMLPF-P capability gaps that put our ground forces and future strategies at high risk—many are materiel; others are intellectual



In the Middle of the Fight

An Assessment of Medium-Armored Forces in Past Military Operations



David E. Johnson • Adam Drouot • Olga Otko

RAND
PERIODIC CENTER

Preparing and Training for the Full Spectrum of Military Challenges

Insights from the Experiences of China, France, the United Kingdom, India, and Israel



David E. Johnson • Alexander G. P. Shewchuk • Roger Koff
M. Wade Martin • Lawrence S. Brown • Michael S. Davis

RAND
NATIONAL DEFENSE RESEARCH INSTITUTE

Hard Fighting

Israel in Lebanon and Gaza

David E. Johnson

RAND
ARABIC CENTER
AND PROJECT ON FORCE